TENT COOPERATION TREAT

ERVICE BREVETS & CONTRATS

From the INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

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WRITTEN OPINION

Rec'd PCT/PTO 0

Date of mailing
(day/month/year)

03.09.2004

Applicant's or agent's file reference

WO 21.1110

REPLY DUE

within 3 month(s) from the above date of mailing

International application No. PCT/EP 03/10005

International filing date (day/month/year) 08.09.2003

Priority date (day/month/year)

10.09.2002

International Patent Classification (IPC) or both national classification and IPC

E21B47/10

3 DEC 2004

Applicant

SERVICES PETROLIERS SCHLUMBERGER

- This written opinion is the second drawn up by this International Preliminary Examining Authority. 1.
- 2. This opinion contains indications relating to the following items:
 - \boxtimes Basis of the opinion
 - П **Priority**
 - Non-establishment of opinion with regard to novelty, inventive step and industrial applicability 111
 - I۷ Lack of unity of invention
 - \boxtimes Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VΙ Certain documents cited
 - VII Certain defects in the international application
 - VIII 🗆 Certain observations on the international application
- 3. The applicant is hereby invited to reply to this opinion.

When?

See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How?

By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also:

For an additional opportunity to submit amendments, see Rule 66.4.

For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.

For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 10.01.2005

Name and mailing address of the international preliminary examining authority:



European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016

Authorized Officer

Dantinne, P

Formalities officer (incl. extension of time limits)

Ter Haar, H

Telephone No. +31 70 340-3817



to

1.	the	With regard to the elements of the international application (Heplacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"):			
	Des	scription, Pages			
	1-8		as originally filed		
	Cla	ims, Numbers			
	1-12		received on 18.06.2004 with letter of 14.06.2004		
	Dra	wings, Sheets			
	1/2-2/2		as originally filed		
2.	With regard to the language , all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.				
	These elements were available or furnished to this Authority in the following language: , which is:				
		the language of publication of the international application (under Rule 48.3(b)).			
3.	With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:				
		contained in the inte	ernational application in written form.		
		filed together with the international application in computer readable form.			
		to the real subsequency to the real subsequence of the			
		furnished subsequently to this Authority in computer readable form.			
		The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.			
		The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.			
4.	The	amendments have r	resulted in the cancellation of:		
		the description,	pages:		
		the claims,	Nos.:		
		the drawings,	sheets:		

This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

5. □

- V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- 1. Statement

Novelty (N)

Claims

1,2,7-10,12

Inventive step (IS)

Claims

1,2,7-10,12

Industrial applicability (IA)

Claims

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

D1: GB 2.294.074 A D2: FR 1.549.531 A

1) Document D1 discloses (the references in parentheses applying to this document): (Fig. 1, page 7 line 31 - page 11 line 17)

A measuring sonde (10) for a hydrocarbon well, the sonde comprising a main body (12), a downstream arm (54), and an upstream arm (52), at least one of said arms being fitted with measurement means (64,48) for determining the characteristics of the fluid flowing in the well, wherein downstream and upstream arms are connected:

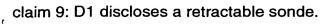
- to the main body via a first and second sliding pivot links (60 and 44); and
- to respectively first and second ends of a skid (32) via first and second pivot links (56 and 38).

The skid in D1 is considered to be the member between links 56 and 38 and does not have to include member 34 which is a detector between link 36 and 56. D1 discloses all technical features of claim 1 and is also suitable to solve the problem stated in the application.

The subject-matter of claim 1 is therefore not new (Article 33(2) PCT).

- 2) At least dependent claims 2, 7-10 and 12 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT with respect to novelty and/or inventive step, the reasons being as follows:
- claim 2: abutments to limit pivoting are known in the art.
- claim 7: D2 discloses an extension arm with parallel blades linked by bridges (see fig.2).
- claim 8: D1 discloses an off-center axis body relative to the well axis.

WRITTEN OPINION SEPARATE SHEET



claim 10: D1 discloses the use of a motor (234) to move the arms.

claim 12: D1 discloses a spinner (48) on the upstream arm.